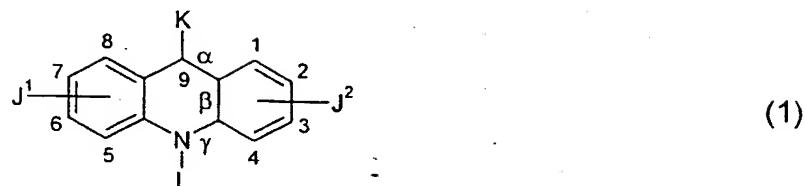


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CLAIMS

1. A compound of the formula:



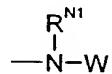
wherein either:

5 (a) K is =O, L is -H, α is a single bond, β is a double bond, γ is a single bond ("acridone"); or:

(b) K is a 9-substituent, L is absent, α is a double bond, β is a single bond, γ is a double bond ("acridine");

and wherein:

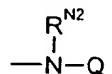
10 J^1 is a 2- or 3-substituent; and,
 J^2 is a 6- or 7-substituent;
and wherein J^1 and J^2 are each independently a group of the formula:



wherein:

15 R^{N1} is independently a nitrogen substituent and is hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted; and,
W is independently C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted;

and wherein, when K is a 9-substituent, K is a group of the formula:

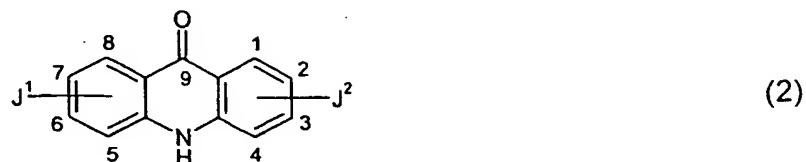


wherein:

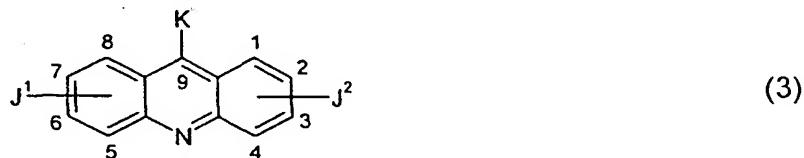
20 R^{N2} is independently a nitrogen substituent and is hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted; and,
Q is independently C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted;
and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.

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2. An acridone compound according to claim 1, wherein K is =O, L is -H, α is a single bond, β is a double bond; γ is a single bond ("acridone"):



5 3. An acridine compound according to claim 1, wherein K is a 9-substituent, L is absent, α is a double bond, β is a single bond, γ is a double bond ("acridine"):



10

4. A compound according to any one of claims 1 to 3, wherein J¹ is a 2-substituent and J² is a 7-substituent.

15

5. A compound according to any one of claims 1 to 3, wherein J¹ is a 3-substituent and J² is a 6-substituent.

20

6. A compound according to any one of claims 1 to 3, wherein J¹ is a 2-substituent and J² is a 6-substituent; or: J¹ is a 3-substituent and J² is a 7-substituent.

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7. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl, C₃₋₂₀heterocyclyl, or C₅₋₂₀aryl, and is optionally substituted with one or more groups selected from: amino; ether; amido; acylamino; carboxy; ester; acyloxy; and sulfonamido.
- 5
8. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl and is optionally substituted with one or more groups selected from: amino and ether.
- 10 9. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl substituted with one or more group selected from: amino; ether; polyamino; polyether; and polyether-polyamino.
- 15 10. A compound according to any one of claims 1 to 6, wherein W is independently a group of the formula:
$$-(\text{CH}_2)_n-\text{[G-(CH}_2)_m\text{]}_s-\text{T}$$
wherein:
n is independently an integer from 1 to 8;
each m is independently an integer from 1 to 8;
20 s is independently an integer from 0 to 3;
each G is independently -O- or -NR^N-;
each R^N is independently a nitrogen substituent;
T is independently a terminal amino group, -NR¹R² or a terminal ether group, -OR⁵.
- 25
11. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl substituted with one or more group selected from: amino; ether; amino-C₁₋₇alkyl-amino; amino-C₁₋₇alkoxy; and ether-C₁₋₇alkoxy.
- 30
12. A compound according to any one of claims 1 to 6, wherein W is independently selected from:
amino-C₁₋₇alkyl;

ether-C₁₋₇alkyl;
amino-C₁₋₇alkyl-amino-C₁₋₇alkyl;
amino-C₁₋₇alkoxy-C₁₋₇alkyl; and,
ether-C₁₋₇alkoxy-C₁₋₇alkyl.

5

13. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein -NR¹R² is a terminal amino group, -OR⁵ is a terminal ether group, R^N is a nitrogen substituent, and each of n and m is independently an integer from 1 to 8:

10 -(CH₂)_n-NR¹R²;-(CH₂)_n-OR⁵;-(CH₂)_n-NR^N-(CH₂)_m-NR¹R²;-(CH₂)_n-NR^N-(CH₂)_m-OR⁵;-(CH₂)_n-O-(CH₂)_m-NR¹R²; and,15 -(CH₂)_n-O-(CH₂)_m-OR⁵.

14. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein -NR¹R² is a terminal amino group, -OR⁵ is a terminal ether group, R^N is a nitrogen substituent, and m is independently an integer from 1 to 8;

20 -(CH₂)₂-NR¹R²;-(CH₂)₂-OR⁵;-(CH₂)₂-NR^N-(CH₂)_m-NR¹R²;25 -(CH₂)₂-NR^N-(CH₂)_m-OR⁵;-(CH₂)₂-O-(CH₂)_m-NR¹R²; and,-(CH₂)₂-O-(CH₂)_m-OR⁵;30 -(CH₂)₃-NR¹R²;-(CH₂)₃-OR⁵;-(CH₂)₃-NR^N-(CH₂)_m-NR¹R²;-(CH₂)₃-NR^N-(CH₂)_m-OR⁵;-(CH₂)₃-O-(CH₂)_m-NR¹R²; and,

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$-(CH_2)_3-O-(CH_2)_m-OR^5;$

$-(CH_2)_4-NR^1R^2;$

$-(CH_2)_4-OR^5;$

5 $-(CH_2)_4-NR^N-(CH_2)_m-NR^1R^2;$

$-(CH_2)_4-NR^N-(CH_2)_m-OR^5;$

$-(CH_2)_4-O-(CH_2)_m-NR^1R^2;$ and,

$-(CH_2)_4-O-(CH_2)_m-OR^5.$

10 15. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein $-NR^1R^2$ is a terminal amino group, $-OR^5$ is a terminal ether group, and n is independently an integer from 1 to 8:

$-(CH_2)_n-NR^1R^2;$ and,

15 $-(CH_2)_n-OR^5.$

16. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein $-NR^1R^2$ is a terminal amino group, and $-OR^5$ is a terminal ether group:

20 $-(CH_2)_2-NR^1R^2;$ and,

$-(CH_2)_2-OR^5;$

$-(CH_2)_3-NR^1R^2;$ and,

$-(CH_2)_3-OR^5;$

$-(CH_2)_4-NR^1R^2;$ and,

25 $-(CH_2)_4-OR^5.$

17. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein $-NR^1R^2$ is a terminal amino group:

30 $-(CH_2)_2-NR^1R^2;$

$-(CH_2)_3-NR^1R^2;$ and,

$-(CH_2)_4-NR^1R^2.$

18. A compound according to any one of claims 10 and 13-17, wherein each of R¹ and R² of the terminal amino group, -NR¹R², is independently an amino substituent, and is hydrogen, C₁-alkyl, C₃₋₂₀heterocyclyl, or C₅₋₂₀aryl, and is optionally substituted; or, R¹ and R², taken together with the nitrogen atom to which they are attached, form a heterocyclic ring having from 3 to 8 ring atoms, and is optionally substituted.

5

10 19. A compound according to claim 18, wherein said terminal amino group is a secondary amino group, and one of R¹ and R² is -H.

15 20. A compound according to claim 18, wherein said terminal amino group is a tertiary amino group, and neither R¹ nor R² is -H.

21. A compound according to claim 18, wherein each of R¹ and R² is independently -Me, -Et, -nPr, -iPr, -nBu, or -tBu.

22. A compound according to claim 18, wherein -NR¹R² is independently -N(Me)₂, -N(Et)₂, -N(nPr)₂, -N(iPr)₂, -N(nBu)₂, or -N(tBu)₂.

20

23. A compound according to claim 18, wherein -NR¹R² is independently -NHMe, -NHEt, -NH(nPr), -NH(iPr), -NH(nBu), or -NH(tBu).

25 24. A compound according to claim 18, wherein R¹ and R², taken together with the nitrogen atom to which they are attached, form a heterocyclic ring having from 3 to 8 ring atoms, which heterocyclic ring is saturated, partially unsaturated, or fully unsaturated, and is optionally substituted.

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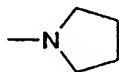
25. A compound according to claim 18, wherein R¹ and R², taken together with the nitrogen atom to which they are attached form a cyclic amino group of the following formula, wherein q is independently an integer from 2 to 7, and wherein said group is optionally substituted:



26. A compound according to claim 18, wherein the terminal amino group, -NR¹R², is independently one of the following cyclic amino groups, and is optionally substituted:

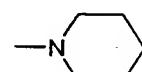
azolidino

(pyrrolidino)

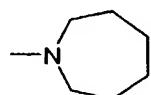


perhydroazino

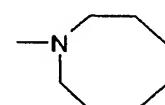
(piperidino)



perhydroazepino



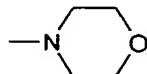
perhydroazocino



10

27. A compound according to claim 18, wherein the terminal amino group, -NR¹R², is one of the following groups, and is optionally substituted:

morpholino



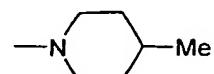
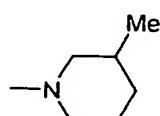
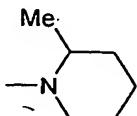
piperazino



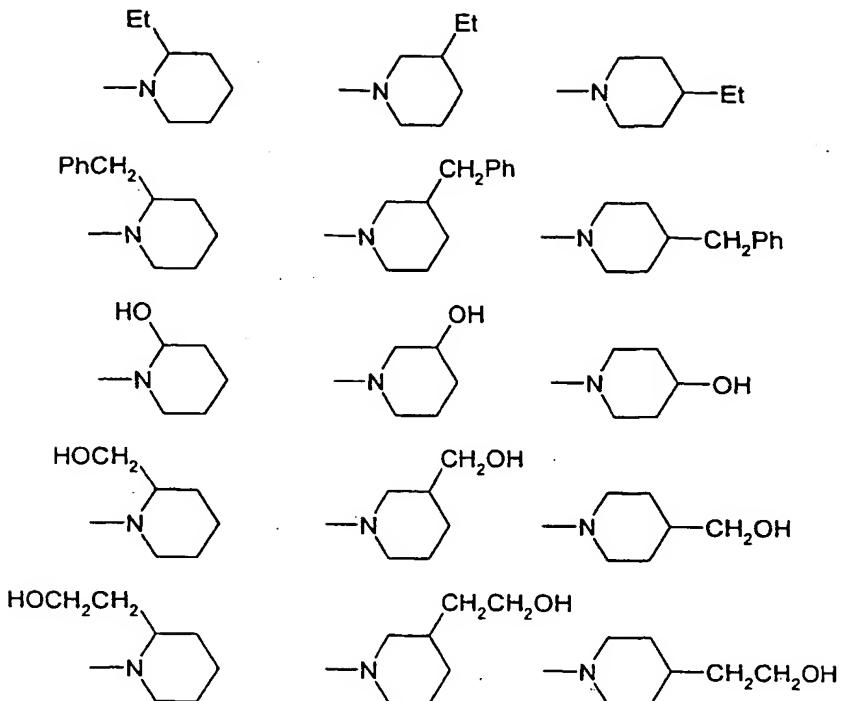
wherein R is an amino substituent, for example, hydrogen, C₁₋₇alkyl, C₃₋₂₀heterocyclyl, or C₅₋₂₀aryl.

15

28. A compound according to claim 18, wherein the terminal amino group, -NR¹R², is one of the following substituted cyclic amino groups:



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5

* * *

29. A compound according to any one of claims 10 and 13-17, wherein R^5 is independently an ether substituent, and is selected from: hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclyl, and C_{5-20} aryl; and is optionally substituted.

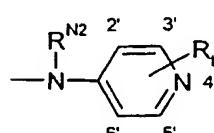
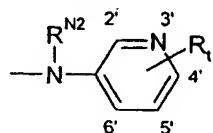
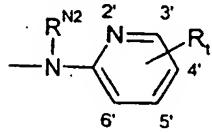
10 30. A compound according to claim 29, wherein R^5 is independently -H.

15 31. A compound according to claim 29, wherein R^5 is independently C_{1-7} alkyl, C_{3-20} heterocyclyl, and C_{5-20} aryl; and is optionally substituted.

20 32. A compound according to claim 29, wherein R^5 is independently -Me, -Et, -nPr, -iPr, -nBu, -tBu, optionally substituted -Ph, or optionally substituted -Bn.

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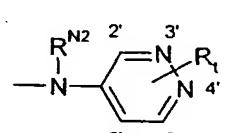
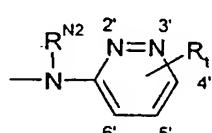
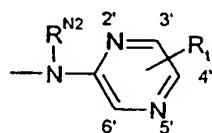
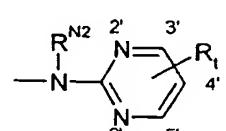
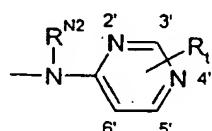
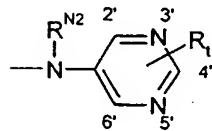
33. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein t is independently an integer from 0 to 4, and each R is independently a substituent.

5

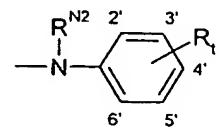
34. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group having one of the following formulae:



wherein t is independently an integer from 0 to 3, and each R is independently a substituent.

10

35. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein t is independently an integer from 0 to 5, and each R is independently a substituent.

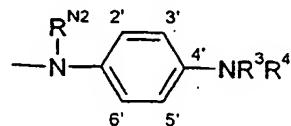
15

36. A compound according to any one of claims 33 to 35, wherein each R is independently selected from halo, amino, hydroxy, ether, thio, thioether, C₁₋₇alkyl, C₁₋₇haloalkyl, acyl, amido, carboxy, cyano, and aminoalkyl.

20

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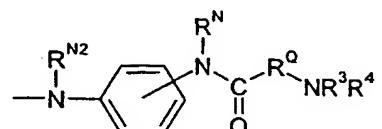
37. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein $-\text{NR}^3\text{R}^4$ is as defined for $-\text{NR}^1\text{R}^2$.

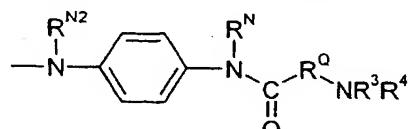
5

38. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



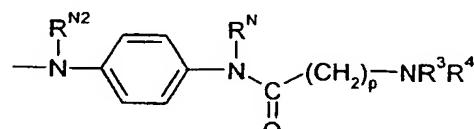
10 wherein R^N is a nitrogen substituent as defined for $\text{R}^{\text{N}2}$, R^Q is independently a C_{1-10} alkylene group, and $-\text{NR}^3\text{R}^4$ is as defined for $-\text{NR}^1\text{R}^2$.

39. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



15 wherein R^N is a nitrogen substituent as defined for $\text{R}^{\text{N}2}$, R^Q is a C_{1-10} alkylene group, and $-\text{NR}^3\text{R}^4$ is as defined for $-\text{NR}^1\text{R}^2$.

40. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and has the following formula:

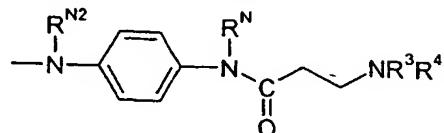


20

wherein R^N is a nitrogen substituent, p is independently an integer from 1 to 8, and $-\text{NR}^3\text{R}^4$ is as defined for $-\text{NR}^1\text{R}^2$

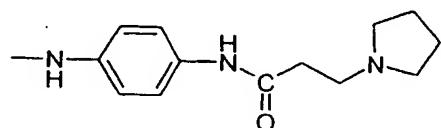
- 121 -

41. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula,:



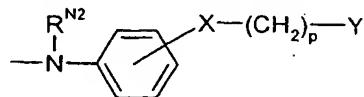
5 wherein R^{N} is a nitrogen substituent as defined for $\text{R}^{\text{N}2}$, and $\text{-NR}^3\text{R}^4$ is as defined for $\text{-NR}^1\text{R}^2$.

42. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



10

43. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein:

15 X is $\text{-N}(\text{R}^{\text{N}})\text{-}$, $\text{-CH}_2\text{-}$, -O- , or -S- ;

R^{N} is a nitrogen substituent as defined for $\text{R}^{\text{N}2}$;

Y is -OH , -OR^{Y} , or $\text{-NR}^3\text{R}^4$;

-OR^{Y} is as defined for -OR^5 ;

$\text{-NR}^3\text{R}^4$ is as defined for $\text{-NR}^1\text{R}^2$; and,

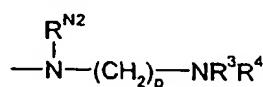
20 p is independently an integer from 1 to 8.

* * *

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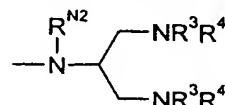
44. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and Q is independently a C₁₋₇alkyl group optionally substituted with one or more amino groups, one or more hydroxy groups, one or more ether groups, one or more carboxy groups, one or more 5 C₃₋₂₀heterocycl groups, or one or more C₅₋₂₀aryl groups.

45. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



10 wherein p is independently an integer from 1 to 8, and the group -NR³R⁴ is as defined for -NR¹R².

46. A compound according to any one of claims 3 to 33, wherein K is a 9-substituent, and is a group of the formula:

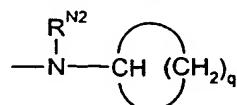


15 wherein each group -NR³R⁴ is as defined for -NR¹R².

* * *

20 47. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and Q is, or comprises, an alicyclic saturated C₁₋₇alkyl group, and is optionally substituted.

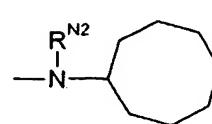
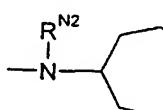
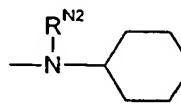
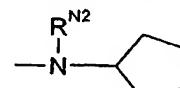
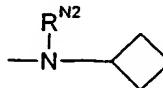
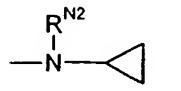
25 48. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



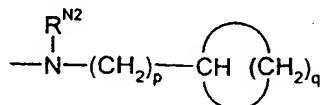
wherein q is independently an integer from 2 to 7, and wherein the cyclic group is optionally substituted.

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49. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of one of the following formulae:



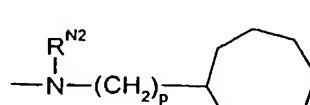
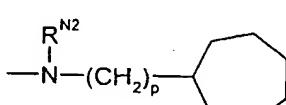
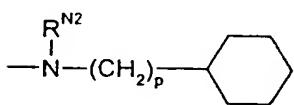
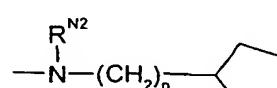
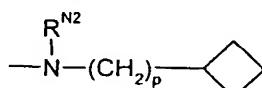
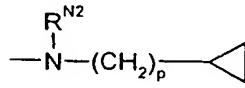
5 50. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein p is independently an integer from 1 to 8 and q is independently an integer from 2 to 7, and wherein the cyclic group is optionally substituted.

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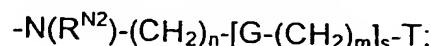
51. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of one of the following formulae:



15

wherein p is independently an integer from 1 to 8, and wherein the cyclic group is optionally substituted.

52. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



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wherein:

n is independently an integer from 1 to 8;

each m is independently an integer from 1 to 8;

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s is independently an integer from 0 to 3;
each G is independently -O- or -NR^N;-
each R^N is independently a nitrogen substituent as defined for R^{N2};
T is independently a terminal amino group, -NR¹R² or a terminal ether
5 group, -OR⁵.

10 53. A compound according to any one of claims 1 to 52, wherein each R^{N1} is
independently -H, -Me, -Et, -nPr, -iPr, -tBu, -Bn, or -Ph.

54. A compound according to any one of claims 1 to 52, wherein each R^{N1} is
independently -H.

15

55. A compound according to any one of claims 1 to 54, wherein each R^{N2} is
independently -H, -Me, -Et, -nPr, -iPr, -tBu, -Bn, or -Ph.

20 56. A compound according to any one of claims 1 to 54, wherein each R^{N2} is
independently -H.

25 57. A compound according to any one of claims 1 to 56, wherein each R^N is
independently -H, -Me, -Et, -nPr, -iPr, -tBu, -Bn, or -Ph.

58. A compound according to any one of claims 1 to 56, wherein each R^N is
independently -H.

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59. Compound BSU-SB-36/102 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
60. Compound BSU-SB-36/100 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 5 61. Compound BSU-SB-36/104 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 10 62. Compound BSU-SB-36/108 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
63. Compound BSU-SB-36/106 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 15 64. Compound BSU-SB-36/228 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
65. Compound BSU-SB-36/234 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 20 66. Compound BSU-SB-36/236 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
67. Compound BSU-SB-36a/030 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 25 68. Compound BSU-SB-36a/028 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
69. Compound BSU-SB-36a/038 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
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70. Compound BSU-SB-36/112 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
71. Compound BSU-SB-36/114 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
72. A composition comprising a compound according to any one of claims 1 to 101 and a pharmaceutically acceptable carrier or diluent.
73. A compound according to any one of claims 1 to 71 for use in a method of treatment of the human or animal body by therapy.
74. Use of a compound according to any one of claims 1 to 71 for the manufacture of a medicament for use in the treatment of a proliferative condition.
75. A method of inhibiting telomerase *in vitro* or *in vivo*, comprising contacting a cell with an effective amount of compound according to any one of claims 1 to 71.
76. A method of regulating cell proliferation *in vitro* or *in vivo*, comprising contacting a cell with an effective amount of compound according to any one of claims 1 to 71.
77. A method for the treatment of a proliferative condition comprising administering to a subject suffering from said proliferative condition a therapeutically-effective amount of a compound according to any one of claims 1 to 71.